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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,914

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Michael C. Garrett

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EXAMINER

LEE, ERICA SHENGKAI

ART UNIT

PAPER NUMBER

3766

MAIL DATE

DELIVERY MODE

10/29/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,914	<b>Applicant(s)</b> GARRETT, MICHAEL C.	
	<b>Examiner</b> ERICA LEE	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 2, 7-9 and 13-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 10-12 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed August 30, 2010 has been entered. Claims 1, 3, 6 and 12 have been amended. Claim 30 is new. Claims 2, 7-9 and 13-29 were previously withdrawn. Currently, claims 1, 3-6, 10-12 and 30 are pending for examination.

### ***Response to Arguments***

2. Applicant's arguments filed August 30, 2010 have been fully considered but they are not persuasive.

3. Applicant argues on pages 8-9 that Smith (US Pat 4,025,869) does not disclose a differential approach. However, upon closer examination of Smith, it is disclosed that amplifier 14 is an amplifier that produces a differentiated result (abstract, col. 3, lines 7-9; col. 3 line 67 to col. 4 line 1), which produces a differential error correction parameter since the claimed invention requires that the differential error correction parameter comprises, at least in part, the high-pass filtered version of the resulted error-corrected signal.

4. Applicant argues on page 9 that Smith does not disclose two input/signals. Smith discloses terminal 10 (fig. 2) as being input terminals 10 (col. 3, line 2) thus disclosing two signal inputs.

### ***Claim Rejections - 35 USC § 102***

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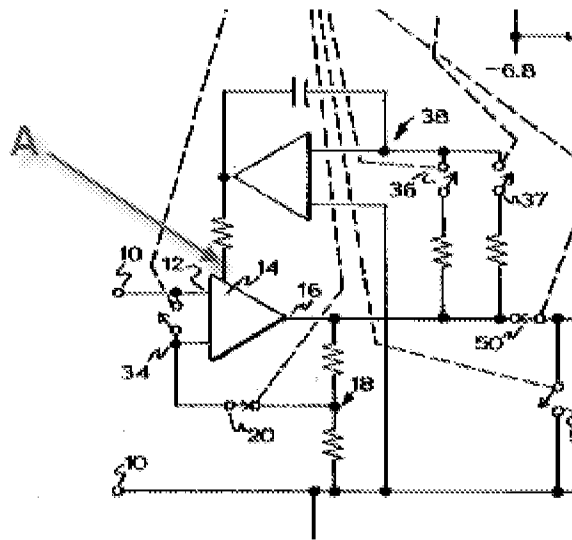
5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 6, 10, 11 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US Pat 4,025,869).

7. Regarding claims 1, 6 and 30, Smith discloses a method of removing offsets to a signal comprising: providing at least one signal input 10; providing a differential error correction parameter (“variable current stage providing a feedback input point. The variable current stage is varied by means of the integrator feedback loop 38 in order to provide offset correction across the summing junction of the amplifier” col. 4, lines 4-9); combining at least one signal 12 carried by the at least one signal input with the differential error correction parameter A (see figure below) to provide a resultant error-corrected signal and amplifying 14 the resultant error-corrected signal to provide an amplified resultant error-corrected signal 16; using a gated integrator 38 to inherently high-pass filter the amplified resultant error-corrected signal to provide an inherent high-pass filtered version of the resultant error-corrected signal; wherein the differential error correction parameter comprises, at least in part, the high-pass filtered version of the resultant error-corrected signal (col. 3, line 18 to col. 4, line 24).



8. Regarding claims 10 and 11, Smith discloses wherein processing an earlier amplified resultant error-corrected signal comprises processing an earlier amplified resultant error-corrected signal in a high frequency passage selected manner 38 (fig. 2).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat 4,025,869).

11. Regarding claim 5, it is well known in the art for amplifiers employed in circuits to amplify signals by at least a gain of 50. The Applicant discloses that a typical prior art

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response is to amplify signals by a gain of, for example, 100 to 500 in order to provide a signal of a useful level and range ([0005]). Smith does not disclose the specifics of the amplifier, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an amplifier capable of amplifying signals by at least a gain of 50 since it is well known in the art to do so and to provide a signal of useful level and range.

12. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat 4,025,869) in view of Braun et al. (US Pat 6,050,940) (previously cited).

13. Regarding claims 3 and 4, Smith discloses an amplifier that is capable of operation in four modes, singly and in various combinations, in which one of the modes is AC amplification/offset correction (col. 2, lines 25-58). Smith also discloses incorporating an integrator 38 within the circuit to inherently high-pass filter a signal that will eventually be used as a differential error correction parameter (col. 4, lines 4-9), but does not disclose the specifics of the integrator. Braun et al. teaches a programmable high-pass filter with four cutoff options, two of which are 0.01Hz and 0.1 Hz (Table 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the high-pass integrator of Smith to be programmable as taught by Braun et al. in order to allow the circuit to handle different frequencies based on the user's needs.

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14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat 4,025,869) in view of Gudaitis (US Pat 5,392,784).

15. Regarding claim 12, Smith discloses claimed invention but does not expressly disclose combining a second signal carried by the at least one signal input with the differential error correction parameter to provide a second resultant error-corrected signal. Gudaitis teaches combining an error correction parameter with both signal inputs (figs. 1-4; abstract), in order to reduce measurement error (abstract; col. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Smith to include the combining the error correction parameter with a second signal as taught by Gudaitis in order to reduce measurement error.

### ***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERICA LEE whose telephone number is (571)270-1480. The examiner can normally be reached on Monday through Friday, 8:30am-6pm, EST; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on (571)272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERICA LEE/  
Examiner, Art Unit 3766

/Mark W Bockelman/  
Primary Examiner, Art Unit 3766